Mittuniversitetet
MID SWEDEN UNIVERSITY

Course Syllabus:

Mechanical Engineering MA, Scientific Project II, 15 credits

General data

Code	MT032A
Subject/Main field	Mechanical Engineering
Cycle	Second cycle
Orientation (name)	
Credits	15.0
Progressive specialisation	A1F , Second cycle, has second-cycle course/s as entry requirements
Answerable institution	Quality Management and Mechanical Engineering
Established	2019-10-15
Date of change	2020-06-02
Valid from	2020-08-01

Aim

The aim of the course is for the students to gain knowledge about the research process and its execution, simultaneously contributing to a research / development project within a chosen area.

Course objectives

On successful completion of the course the student should be able to:
• plan the time, for themselves and others, when solving an applied task in cooperation with the project team
• perform independent research using scientific methodology, perform basic leadership, and basic evaluation of a research project
• apply scientific methodology
• gain understanding of the task, define limitations and formulate the task using the applied scientific method
• solve the task, or parts of it, within the set time frame
• in writing and orally present and discuss the methodology and solutions in a format suitable for scientific publication and presentation
• follow up, reflect and evaluate the project implementation

Content

The course covers in-depth and project-specific elements that, in whole or in part, include the following: theories, models, experimental methods, tools and instrumentation. The content is defined to the extent and depth of the individual course plan that is established together with the supervisor, and generally should include the following:

• application of mechanical engineering to support and implement basic elements of a subproject within an ongoing research or development project
• participation in the project management for the research and development project.
• application of scientific methodology
• application of problem formulating and solving methodology
• literature study
• experimental method
• experimental work
• analysis of acquired results
• summary of acquired results
• discussion of the results and conclusions.
• presentation of the project, written and oral, in an acceptable scientific format
• follow-up and evaluation of project implementation
• basic scientific contact networking

Entry requirements

Mechanical Engineering MA, Scientific Project I, 15 credits.

Selection rules and procedures

The selection process is in accordance with the Higher Education Ordinance and the local order of admission.

Teaching form

The course is started by the supervisor after preparing an individual course plan that is project-specific and which, in addition to the content, defines deadlines, the form of teaching and course literature. The course plan is approved by the examiner before the course starts. The course consists mainly of self-studies and independent work.
Work per student is approximately 400 hours.

Examination form

1001: Report - Written Presentation, 13,5 hp

Grading: Seven-grade scale, A, B, C, D, E, Fx and F. Fx and F represent fail levels.

2001: Report - Oral Report, 1,5 hp

Grading: Fail (U) or Pass (G)

Grading criteria for the subject can be found at www.miun.se/gradingcriteria.

The examiner has the right to offer alternative examination arrangements to students who have been granted the right to special support by Mid Sweden University's disabilities adviser.

Grading system

Seven-grade scale, A, B, C, D, E, Fx and F. Fx and F represent fail levels.

Other information

The course Scientific Project II shall involve independent (though collaboration between students may be allowed) research, design or experiments within a larger research or development project. Scientific methodology should be used and the work shall include sections of independent basic analysis and systematic problem solving.

An examiner must always be contacted before the work can be started for formal approval and registration of the scientific project, and the appointment of a supervisor. It is not possible to get an approval for an already started or finsihed work. The examiner will appoint a supervisor at the university. The supervisor is responsible for the continuous interaction with the student during the course. If a company or organisation outside the university is involved, a second supervisor is also appointed at the company or organization.

The course can not be used in the same exam as MT026A.

Course reading